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RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/320,713DATE: 06/10/1999  
TIME: 11:19:01

Input Set: I320713.RAW

This Raw Listing contains the General Information Section and up to first 5 pages.

1 <110> APPLICANT: Reinhard Ebner  
 2 Steven M. Ruben  
 3 <120> TITLE OF INVENTION: INTERLEUKINS-21 AND 22  
 4 <130> FILE REFERENCE: PF470  
 5 <140> CURRENT APPLICATION NUMBER: US/09/320,713  
 6 <141> CURRENT FILING DATE: 1999-05-27  
 7 <150> EARLIER APPLICATION NUMBER: 60/087,340  
 8 <151> EARLIER FILING DATE: 1998-05-29  
 9 <150> EARLIER APPLICATION NUMBER: 60/099,805  
 10 <151> EARLIER FILING DATE: 1998-09-10  
 11 <150> EARLIER APPLICATION NUMBER: 60/131,965  
 12 <151> EARLIER FILING DATE: 1999-04-30  
 13 <160> NUMBER OF SEQ ID NOS: 32  
 14 <170> SOFTWARE: PatentIn Ver. 2.0  
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 17 <212> TYPE: DNA  
 18 <213> ORGANISM: Homo sapiens  
 19 <220> FEATURE:  
 20 <221> NAME/KEY: CDS  
 21 <222> LOCATION: (2)..(262)  
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 24 Ala Arg Val Asp Thr Asp Glu Asp Arg Tyr Pro Gln Lys Leu Ala Phe  
 25 1 5 10 15  
 26 gcc gag tgc ctg tgc aga ggc tgt atc gat gca cgg acg ggc cgc gag 97  
 27 Ala Glu Cys Leu Cys Arg Gly Cys Ile Asp Ala Arg Thr Gly Arg Glu  
 28 20 25 30  
 29 aca gct gcg ctc aac tcc gtg cgg ctg ctc cag agc ctg ctg gtg ctg 145  
 30 Thr Ala Ala Leu Asn Ser Val Arg Leu Leu Gln Ser Leu Leu Val Leu  
 31 35 40 45  
 32 cgc cgc cgg ccc tgc tcc cgc gac ggc tcg ggg ctc ccc aca cct ggg 193  
 33 Arg Arg Arg Pro Cys Ser Arg Asp Gly Ser Gly Leu Pro Thr Pro Gly  
 34 50 55 60  
 35 gcc ttt gcc ttc cac acc gag ttc atc cac gtc ccc gtc ggc tgc acc 241  
 36 Ala Phe Ala Phe His Thr Glu Phe Ile His Val Pro Val Gly Cys Thr  
 37 65 70 75 80  
 38 tgc gtg ctg ccc cgt tca gtg tgaccgccaa ggccgtgggg cccttagact 292  
 39 Cys Val Leu Pro Arg Ser Val  
 40 85  
 41 ggacacgtgt gctccccaga gggcacccccc tatttatgt tatattattgt tatttatatg 352  
 42 cctcccccaa cactaccctt ggggtctggg cattccccgt gtctggagga cagcccccca 412  
 43 ctgttctcct catctccagc ctcagtagtt gggggtwgaa ggagctcagc accttccca 472  
 44 gcccctaaag ctgcagaaaa ggtgtcacac ggctgcctgt accttggyc acctgtccctgc 532

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 46 tccttggaaag taccctgtt tcttaaaca ttatthaagt gtacgtgtat tattaaactg 652  
 47 atgaacacaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaa 705  
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 50 <212> TYPE: PRT  
 51 <213> ORGANISM: Homo sapiens  
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 20 25 30  
 Thr Ala Ala Leu Asn Ser Val Arg Leu Leu Gln Ser Leu Leu Val Leu  
 35 40 45  
 Arg Arg Arg Pro Cys Ser Arg Asp Gly Ser Gly Leu Pro Thr Pro Gly  
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 1 5 10 15  
 ctg cag ctg ggg ccg cgt gag cag gcg cgc aac gcg agc tgc ccg gca 95  
 Leu Gln Leu Gly Pro Arg Glu Gln Ala Arg Asn Ala Ser Cys Pro Ala  
 20 25 30  
 ggg ggc agg ccc gcc gac cgc cgc ttc cgg ccg ccc acc aac ctg cgc 143  
 Gly Gly Arg Pro Ala Asp Arg Arg Phe Arg Pro Pro Thr Asn Leu Arg  
 35 40 45  
 agc gtg tcg ccc tgg gcc tac aga atc tcc tac gac ccg gcg agg tac 191  
 Ser Val Ser Pro Trp Ala Tyr Arg Ile Ser Tyr Asp Pro Ala Arg Tyr  
 50 55 60  
 ccc agg tac ctg cct gaa gcc tac tgc ctg tgc cgg ggc tgc ctg acc 239  
 Pro Arg Tyr Leu Pro Glu Ala Tyr Cys Leu Cys Arg Gly Cys Leu Thr  
 65 70 75  
 ggg ctg ttc ggc gag gag gac gtg cgc ttc cgc agc gcc cct gtc tac 287  
 Gly Leu Phe Gly Glu Glu Asp Val Arg Phe Arg Ser Ala Pro Val Tyr  
 80 85 90 95  
 atg ccc acc gtc gtc ctg cgc cgc acc ccc gcc tgc gcc ggc ggc cgt 335  
 Met Pro Thr Val Val Leu Arg Arg Thr Pro Ala Cys Ala Gly Gly Arg  
 100 105 110  
 tcc gtc tac acc gag gcc tac gtc acc atc ccc gtg ggc tgc acc tgc 383

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**RAW SEQUENCE LISTING**  
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95 Ser Val Tyr Thr Glu Ala Tyr Val Thr Ile Pro Val Gly Cys Thr Cys  
 96 115 120 125  
 97 gtc ccc gag ccg gag aag gac gca gac agc atc aac tcc agc atc gac 431  
 98 Val Pro Glu Pro Glu Lys Asp Ala Asp Ser Ile Asn Ser Ser Ile Asp  
 99 130 135 140  
 100 aaa cag ggc gcc aag ctc ctg ctg ggc ccc aac gac gcg ccc gct ggc 479  
 101 Lys Gln Gly Ala Lys Leu Leu Gly Pro Asn Asp Ala Pro Ala Gly  
 102 145 150 155  
 103 ccc tgaggccggt cctgccccgg gaggtctccc cgccccgcat cccgaggcgc 532  
 104 Pro  
 105 160  
 106 ccaagctgga gccgcctgga gggctcggtc ggcgacctct gaagagagtg caccgagcaa 592  
 107 accaagtgcc ggagcaccag cgccgcctt ccatggagac tcgtaagcag cttcatctga 652  
 108 cacgggcata cctggcttgc ttttagctac aagcaagcag cgtggctgga agctgatggg 712  
 109 aaacgacccg gcacgggcat cctgtgtgc gcccgcattgg agggtttggaa aagttcacg 772  
 110 gaggctccct gaggagcctc tcagatcggc tgctgcgggt gcagggcgtg actcaccgct 832  
 111 gggtgcttgc caaagagata gggacgcata tgcttttaa agcaatctaa aaataataat 892  
 112 aagtatacg actatatacc tactttaaa atcaactgtt ttgaatagag gcagagctat 952  
 113 tttatattat caaatgagag ctactctgtt acatttctta acatataaac atcgttttt 1012  
 114 acttcttcgt gtagaatttt ttaaagcata atttggaaatcc ttggataaaat tttgttagctg 1072  
 115 gtacactctg gcctgggtct ctgaattcag cctgtcaccg atggctgact gatgaaatgg 1132  
 116 acacgtctca tctgacccac tcttccttcc actgaaggc ttcacgggccc tccaggtgga 1192  
 117 ccaaaggat gcacaggcgg ctcgcattgc ccaggccag ctaagagttc caaagatctc 1252  
 118 agatttgggtt ttagtcatga atacataaac agtctcaaacc tcgcacaatt tttccccct 1312  
 119 tttgaaagcc actggggcca atttgggtt aagaggtggt gagataagaa gtggAACGtg 1372  
 120 acatcttcgt cagttgtcag aagaatccaa gcaggatttg gcttagttgt aagggtttta 1432  
 121 ggatcaggct gaatatgagg acaaagtggg ccacgttagc atctgcagag atcaatctgg 1492  
 122 aggcttctgt ttctgcattc tgccacgaga gctaggtcct tgatctttc tttagattga 1552  
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 127 <212> TYPE: PRT  
 128 <213> ORGANISM: Homo sapiens  
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 132 Gln Leu Gly Pro Arg Glu Gln Ala Arg Asn Ala Ser Cys Pro Ala Gly  
 133 20 25 30  
 134 Gly Arg Pro Ala Asp Arg Arg Phe Arg Pro Pro Thr Asn Leu Arg Ser  
 135 35 40 45  
 136 Val Ser Pro Trp Ala Tyr Arg Ile Ser Tyr Asp Pro Ala Arg Tyr Pro  
 137 50 55 60  
 138 Arg Tyr Leu Pro Glu Ala Tyr Cys Leu Cys Arg Gly Cys Leu Thr Gly  
 139 65 70 75 80  
 140 Leu Phe Gly Glu Glu Asp Val Arg Phe Arg Ser Ala Pro Val Tyr Met  
 141 85 90 95  
 142 Pro Thr Val Val Leu Arg Arg Thr Pro Ala Cys Ala Gly Gly Arg Ser  
 143 100 105 110  
 144 Val Tyr Thr Glu Ala Tyr Val Thr Ile Pro Val Gly Cys Thr Cys Val

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RAW SEQUENCE LISTING  
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Input Set: I320713.RAW

145 115 120 125  
146 Pro Glu Pro Glu Lys Asp Ala Asp Ser Ile Asn Ser Ser Ile Asp Lys  
147 130 135 140  
148 Gln Gly Ala Lys Leu Leu Leu Gly Pro Asn Asp Ala Pro Ala Gly Pro  
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151 <211> LENGTH: 155  
152 <212> TYPE: PRT  
153 <213> ORGANISM: Homo sapiens  
154 <400> SEQUENCE: 5  
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156 1 5 10 15  
157 Leu Glu Ala Ile Val Lys Ala Gly Ile Thr Ile Pro Arg Asn Pro Gly  
158 20 25 30  
159 Cys Pro Asn Ser Glu Asp Lys Asn Phe Pro Arg Thr Val Met Val Asn  
160 35 40 45  
161 Leu Asn Ile His Asn Arg Asn Thr Asn Thr Asn Pro Lys Arg Ser Ser  
162 50 55 60  
163 Asp Tyr Tyr Asn Arg Ser Thr Ser Pro Trp Asn Leu His Arg Asn Glu  
164 65 70 75 80  
165 Asp Pro Glu Arg Tyr Pro Ser Val Ile Trp Glu Ala Lys Cys Arg His  
166 85 90 95  
167 Leu Gly Cys Ile Asn Ala Asp Gly Asn Val Asp Tyr His Met Asn Ser  
168 100 105 110  
169 Val Pro Ile Gln Gln Glu Ile Leu Val Leu Arg Arg Glu Pro Pro His  
170 115 120 125  
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173 Thr Cys Val Thr Pro Ile Val His His Val Ala  
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176 <211> LENGTH: 158  
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178 <213> ORGANISM: Mus musculus  
179 <400> SEQUENCE: 6  
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183 20 25 30  
184 Ser Ala Cys Pro Asn Thr Glu Ala Lys Asp Phe Leu Gln Asn Val Lys  
185 35 40 45  
186 Val Asn Leu Lys Val Phe Asn Ser Leu Gly Ala Lys Val Ser Ser Arg  
187 50 55 60  
188 Arg Pro Ser Asp Tyr Leu Asn Arg Ser Thr Ser Pro Trp Thr Leu His  
189 65 70 75 80  
190 Arg Asn Glu Asp Pro Asp Arg Tyr Pro Ser Val Ile Trp Glu Ala Gln  
191 85 90 95  
192 Cys Arg His Gln Arg Cys Val Asn Ala Glu Gly Lys Leu Asp His His  
193 100 105 110  
194 Met Asn Ser Val Leu Ile Gln Gln Glu Ile Leu Val Leu Lys Arg Glu

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RAW SEQUENCE LISTING  
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195 115 120 125  
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 197 130 135 140  
 198 Val Gly Cys Thr Cys Val Ala Ser Ile Val Arg Gln Ala Ala  
 199 145 150 155  
 200 <210> SEQ ID NO 7  
 201 <211> LENGTH: 151  
 202 <212> TYPE: PRT  
 203 <213> ORGANISM: Homo sapiens  
 204 <400> SEQUENCE: 7  
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 1 5 10 15  
 207 Asp Cys Ile Val Lys Ser Glu Ile Thr Ser Ala Gln Thr Pro Arg Cys  
 208 20 25 30  
 209 Leu Ala Ala Asn Asn Ser Phe Pro Arg Ser Val Met Val Thr Leu Ser  
 210 35 40 45  
 211 Ile Arg Asn Trp Asn Thr Ser Ser Lys Arg Ala Ser Asp Tyr Tyr Asn  
 212 50 55 60  
 213 Arg Ser Thr Ser Pro Trp Thr Leu His Arg Asn Glu Asp Gln Asp Arg  
 214 65 70 75 80  
 215 Tyr Pro Ser Val Ile Trp Glu Ala Lys Cys Arg Tyr Leu Gly Cys Val  
 216 85 90 95  
 217 Asn Ala Asp Gly Asn Val Asp Tyr His Met Asn Ser Val Pro Ile Gln  
 218 100 105 110  
 219 Gln Glu Ile Leu Val Val Arg Lys Gly His Gln Pro Cys Pro Asn Ser  
 220 115 120 125  
 221 Phe Arg Leu Glu Lys Met Leu Val Thr Val Gly Cys Thr Cys Val Thr  
 222 130 135 140  
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 224 145 150  
 225 <210> SEQ ID NO 8  
 226 <211> LENGTH: 180  
 227 <212> TYPE: PRT  
 228 <213> ORGANISM: Homo sapiens  
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 231 1 5 10 15  
 232 Leu Gly Leu Gly Gln Pro Arg Ser Pro Lys Ser Lys Arg Lys Gln  
 233 20 25 30  
 234 Gly Arg Pro Gly Pro Leu Ala Pro Gly Pro His Gln Val Pro Leu Asp  
 235 35 40 45  
 236 Leu Val Ser Arg Met Lys Pro Tyr Ala Arg Met Glu Glu Tyr Glu Arg  
 237 50 55 60  
 238 Asn Ile Glu Glu Met Val Ala Gln Leu Arg Asn Ser Ser Glu Leu Ala  
 239 65 70 75 80  
 240 Gln Arg Lys Cys Glu Val Asn Leu Gln Leu Trp Met Ser Asn Lys Arg  
 241 85 90 95  
 242 Ser Leu Ser Pro Trp Gly Tyr Ser Ile Asn His Asp Pro Ser Arg Ile  
 243 100 105 110  
 244 Pro Val Asp Leu Pro Glu Ala Arg Cys Leu Cys Leu Gly Cys Val Asn

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa.

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Line ? Error/Warning

Original Text

305 W "N" or "Xaa" used: Feature required  
432 W "N" or "Xaa" used: Feature required  
433 W "N" or "Xaa" used: Feature required  
434 W "N" or "Xaa" used: Feature required  
436 W "N" or "Xaa" used: Feature required  
437 W "N" or "Xaa" used: Feature required  
438 W "N" or "Xaa" used: Feature required  
576 W "N" or "Xaa" used: Feature required  
577 W "N" or "Xaa" used: Feature required  
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580 W "N" or "Xaa" used: Feature required  
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gttggaaaa gttcacggng gctccctgag gacctgcg  
aaggcgtgga ctcaccgctg ggtgcttgcc aanaagga  
ttgaatagag gcagagctta ttttatatta tccaaatg  
ctttaaacat ttttaaacatn gntttttta cttcttnc  
cntaattggg a  
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ggnnttcggc ggcgactctg aagagagtnc accgagca  
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tttttagtta caagcaagca nntggnttga agtngntg  
tgtnttnggg gccntntgga gggttttgga aaatttta  
anattggntt ttttaggt tnaagggtnn nttaactt  
ggatttttt tnaagatt  
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gggttcggc nccgcgaacc tctgaaagag aagtgc  
gcaccagncc cgccttcca tggagactcg taagc  
agagcctgac tgggtctgctg cccgcggccc tgactacc  
cccacacctg gggnccttgc accttccaca ccgnagtt  
gctgtcacct gacgtgctgn ccccgttac agtgtgna  
ccctnagtac tggnacacgt gtgatacccc ag